

#6- Medical Conditions Table

Condition	Description	Potential nutrition/feeding implications
ADHD	Attention Deficit Hyperactivity Disorder- Major symptoms include daydreaming, selective listening, distraction and inattentive behavior.	May have behavioral feeding concerns. Medications may decrease appetite. http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0002518/
Asthma	Chronic inflammatory disorder of airways	Chronic medication use may influence growth and/or bone mineralization. untreated asthma associated with poor growth. Food allergies can trigger asthma attacks in some children. Uncontrolled asthma may warrant referral to PCP for food allergy testing. http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001196/
Autism	Abnormal social and communication patterns, 1/3 have seizures. May not perceive hunger.	Abnormal food related behaviors including texture sensitivity & limited food selection causing nutrient deficiencies, potential drug-nutrient interactions. Goals include improve growth rate and mealtime behavior. Additional resources: http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0002494/ AAP Paper www.aap.org/pressroom/autismMgmt.pdf
Bronchiolitis	Lower respiratory tract infection that usually affects children < 24 months- 3 infections in last 6 months	Increased energy and nutrient requirements. May affect nutritional status during a critical growth period.
Cancer	Type of cancers and stage of disease at diagnosis vary	Diagnosis, age of child and treatment modalities may affect nutritional status and needs. Malnutrition may be related to advanced disease or consequences of therapy.
Cardiorespiratory disease	Cardiovascular defects may be present at birth	Growth problems, Increased energy needs and decreased intake and absorption, poor feeding and fatigue prior to surgery. Medication may decrease appetite.
Celiac disease	Inability to digest gluten. Gluten in diet causes diarrhea, weight loss, failure to thrive and malabsorption	Medical nutritional therapy required to meet nutrient needs on gluten-free diet http://www.mayoclinic.com/health/celiac-disease/DS00319
Cerebral palsy	Motor nerve disorder caused by injury to the central nervous system. Can influence tone and posture, or oral motor control.	Growth problems, oral-motor problems, may be need for adaptive equipment, feeding may be time consuming, medication nutrient interaction seizure disorder, constipation. http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001734/
Chronic lung disease	Includes asthma, cystic fibrosis and other chronic lung diseases.	Growth failure and malnutrition due to low calorie intake and hyper-metabolism. Medication-nutrient interaction, particularly if steroids administered.
Cleft lip or palate	Facial anomaly which may cause difficulty with breast feeding, chewing, sucking and swallowing- especially prior to surgical repair.	Slow growth until mechanics of feeding are addressed. May need special bottle nipples, lengthy feedings. Surgical procedures can impact feeding and put strain on families. http://www.cdc.gov/ncbddd/birthdefects/CleftLip.html http://www.widesmiles.org
Cystic fibrosis	Inherited disorder of respiratory glands, primarily in pancreas, lungs and sweat glands	Increased calories due to malabsorption and increased metabolic needs. Special nutrient needs requiring medical nutritional therapy including vitamin supplementation. Digestion may require pancreatic enzyme replacements. Followed at Cystic Fibrosis Centers in Madison, Milwaukee, Marshfield, Green Bay, La Crosse & Minneapolis. http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001167/

Developmental delay	May have problems with head control, chewing or swallowing.	Developmental readiness for feeding may be delayed due to weak suck, decreased endurance, poor oral motor coordination or oral defensiveness. Feeding may be time consuming. Constipation can be secondary to limited dietary intake.
Diabetes mellitus	Metabolic disease characterized by hyperglycemia resulting from defects in insulin secretion, insulin action or both.	Special dietary needs requiring medical nutritional therapy. Individualized plan is carbohydrate controlled, well balanced and heart healthy. Usually followed at Tertiary Care Center by Registered Dietitian http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0002194/ NFSMI Diabetes Factsheet www.nfsmi.org?Information/sp_needs_handbk.pdf
Down syndrome	Genetic disorder with associated low muscle tone, cardiac problems, GI malformations and short stature	Poor suck in infancy, may require lactation assistance, may grow slow initially, risk for obesity, constipation, gum disease, increased for osteoporosis http://www.mayoclinic.com/health/down-syndrome/DS00182/METHOD=print
Epilepsy	Seizure disorder	Medication-nutrient reactions which may affect appetite http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001714/
Failure to thrive	Slow rate of growth. Infant or child's weight decreases 2 growth percentiles. If a child's weight persists in plotting <5%, the goal should be growth that parallels the standard growth curve.	May require follow-up of infant's growth, recommendations for formula/dietary changes, review of formula preparation/meal time, or referral to other clinicians. http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001986/
Food allergies	Adverse immune response to a food or a hypersensitivity that causes an adverse immunologic reaction.	Limited food intake. May require medical nutritional therapy to ensure nutrient needs are met while eliminating the offending food/s. Additional resources: http://www.foodallergy.org/
Gastro-esophageal reflux	Regurgitation of stomach contents in to esophagus where they can be aspirated. Most common in premature infants, in infants of 1-4 months, when infants are awake but not crying and in neurologically impaired children. Most is benign and will be outgrown.	May result in postprandial irritability, feeding difficulties, hiccoughs/belching, failure to thrive, aspiration. Treatments include medications, surgical interventions, formula with added rice, thickened feeding, positioning. http://children.webmd.com/infants-children
Lactose intolerance	Inability to digest lactose due to insufficient production of the enzyme lactase. Individual tolerance varies.	Ingestion of foods containing lactose causes diarrhea, nausea, abdominal bloating and cramps. MNT or nutrition education to avoid sources of lactose necessary and highly effective with adherence to diet. In some cases, lactase enzyme tablets can be used prior to consumption of lactose-containing foods. http://www.webmd.com/digestive-disorders/tc/lactose-intolerance-topic-overview
Lead toxicity	Elevated levels due to environmental exposure associated with harmful effects on health, nutritional status, learning or behavior. Confirmed with venous blood.	Adequate intake of calories, calcium, magnesium, iron, zinc and various vitamins decreases the susceptibility of children to toxic effects. Iron deficiency and lead poisoning often co-exist. http://children.webmd.com/tc/lead-poisoning-topic-overview
Liver disease	Intestinal absorption and metabolism of key nutrients may be affected	May need to limit protein intake requiring medical nutritional therapy.

Malabsorption syndromes	Short bowel syndrome is a loss of area in the intestine that causes malabsorption	May have chronic diarrhea, MNT and/or special medical nutritional products may be necessary to assure adequate nutrient absorption and utilization. Tube feeding or parenteral nutrition is sometimes necessary. http://www.webmd.com/a-to-z-guides/malabsorption-syndrome-topic-overview
Maple syrup urine diseases	Abnormal oxidative decarboxylation of branched chain keto acids, untreated leads to mental retardation, seizures and death	Growth problems, restrict branched chain amino acids, supplement L-carnitine. Followed at Biochemical Genetics Clinics Additional resources: Related to genetic disorders for basic information: http://www.rarediseases.org/ http://ghr.nlm.nih.gov/condition/maple-syrup-urine-disease
Meningitis	Infectious disease characterized by inflammation of the meninges (the tissues that surround the brain or spinal cord) usually caused by a bacterial infection: symptoms include headache and stiff neck and fever and nausea. Severe complications such as paralysis, blindness, seizure disorders may impact nutritional status.	Variable based upon disease and progression and complications. MNT may be necessary as part of recovery and rehabilitation. http://children.webmd.com/vaccines/tc/meningitis-topic-overview
Muscular dystrophy	Familial disease characterized by progressive atrophy and wasting of muscles	Muscle deterioration can impact positioning, feeding, chewing, swallowing, and elimination: may have constipation: may need high calorie diet or controlled calorie diet, adaptive equipment, medical nutritional products. http://children.webmd.com/understanding-muscular-dystrophy-treatment
Neural tube defect	Myelomeningocele, immobility, frequently associated with hydrocephaly	Constipation, urinary tract infections, increased weight gain, medication-nutrient reactions http://www.nichd.nih.gov/health/topics/ntds/Pages/default.aspx
Nutrition deficiency disease	Current macro and or nutrient deficiencies.	Important functional disturbances such as impaired cognitive function, impaired immune status and impaired skeletal muscle status may occur
Rickets	Disease of childhood, characterized by softening and deformity of the bones as a result of inadequate intake of vitamin D and insufficient exposure to sunlight, also associated with impaired calcium and phosphorus metabolism; can be long-term complication of seizure medication use; can be associated with premature birth and bronchopulmonary dysplasia.	MNT may be a necessary part of treatment. http://www.mayoclinic.com/health/rickets/DS00813
Pancreatitis	Chronic or acute disease of the pancreas.	Moderate to severe disease may require medical nutritional therapy due to malabsorption. http://www.webmd.com/digestive-disorders/tc/pancreatitis-topic-overview

Parasitic infection	Illness caused by an organism that invades the body usually via the skin or intestinal tract.	May cause nausea, vomiting, and /or diarrhea, jaundice and weight loss until infection is diagnosed and treated. Some parasites may cause rare but long-term complications involving the respiratory, gastrointestinal or nervous systems which may have nutritional implications.
PKU	Deficiency in phenylalanine hydroxylase which can lead to mental retardation if untreated	Diet needs to restrict phenylalanine, supplement tyrosine. Family may need assistance accessing special foods. Followed at Metabolic Clinics in Madison, Milwaukee & Marshfield. Additional resources: Related to genetic disorders for basic information: http://www.rarediseases.org/ http://www.mayoclinic.com/health/phenylketonuria/DS00514
Prematurity	Infant born before week 37 of pregnancy	Premature formulas recommended until catch-up growth is completed or until 9-12 months corrected age. Feeding guidelines including introduction of solids based on corrected age. Developmental readiness for feeding may be delayed due to weak suck, decreased endurance, poor oral motor coordination or oral defensiveness. Likely to require lactation support: MNT variable depending on complications of prematurity such as FTT, BPD, reactive airway disease, renal complications, GER, other gastrointestinal complication such as short bowel syndrome or NEC, cerebral palsy, developmental delay, anemia, chronic infections, osteopenia, feeding problems. Additional resources: Risk Criteria Care Guidelines Preterm, SGA, LBW Wisconsin Association for Perinatal Care www.perinatalweb.org , http://www.mayoclinic.com/health/premature-birth/DS00137